

CLAIMS

1. A method for defrosting an absorption refrigerator (1) including

- a cabinet having outer walls (2, 3, 4, 5, 6) and at least one door (7, 8) encasing a low temperature storage compartment (9),
- an absorption refrigerating system including an evaporator tube (20) in which a refrigeration medium flows from an upstream end to a downstream end of the evaporator tube, and which evaporator tube comprises a first tube section (21) which is arranged to absorb heat from the low temperature compartment,
- a first heater provided to heat said first tube section,

characterized in the steps of:

- determining a defrost start time for defrosting of said low temperature compartment,
- starting said absorption refrigerating system a first time at said defrost start time independent of other control parameters determining start and stop of said absorption refrigerating system,
- detecting stop of said absorption refrigerating system,
- applying heat to said first tube section using said first heater,
- detecting the temperature of said first tube section,
- starting said absorption refrigerating system a second time, and
- detecting end of low temperature compartment defrosting.

2. The method according to claim 1, wherein

- said step of starting said absorption refrigerating system a second time is performed when the temperature of said first tube section has reached a threshold.

3. The method according to claim 1, wherein said absorption refrigerator comprises,

5 - a higher temperature storage compartment (10), said low and higher temperature compartments being separated by a partition wall (11),

10 - at least a second tube section (22), which is arranged to absorb heat from the higher temperature compartment,
- a second heater provided to heat said second tube section comprising the steps of:

15 -determining a defrost start time for defrosting of said low temperature compartment and higher temperature compartment,
- applying heat to said second tube section using said second heater.

20 4. The method according to claim 1, wherein

- DC-power, e.g. through battery, AC/DC converter etc, is supplied to electronics, such as fans, heaters, control system etc, in said absorption refrigerating system during at least part of the operating time of said absorption refrigerator.

25 5. The method according to claim 1, wherein:

- a delay is introduced between the step of detecting stop of said absorption refrigerating system and said step of applying heat to said first tube section.

20 6. The method according to claim 1, wherein:

30 - the step of detecting end of low temperature compartment defrosting is performed by detecting the temperature of said first tube section and detecting if a specified time period has elapsed and determining if said temperature is above a threshold or if said specified time period has elapsed.

7. The method according to claim 2, wherein:

- the step of applying heat to said second tube section is performed when the start-up sequence for said absorption refrigerating system has finished.

5 8. The method according to claim 2, wherein:

- the step of applying heat to the second tube section is commenced when heat application to the first tube section is ceased.

9. The method according to claim 3, wherein:

10 - the step of applying heat to said second tube section is performed while the absorption refrigerating system is operating.

10. The method according to claim 9, wherein:

15 - detecting end of higher temperature compartment defrosting by detecting the temperature on said second tube section and detecting if a specified time period has elapsed and determining if said temperature is above a threshold or if said specified time period has elapsed.

11. The method according to claim 9, wherein:

20 - said absorption refrigerator comprises a water drain pipe and wherein at least one heating element is arranged in said water drain pipe, and comprising the step of:
- resuming normal thermostatic operation after said step of detecting end of higher temperature compartment defrosting, and
- continue to apply power to said at least one heating element arranged in said water drain pipe.

25 12. The method according to claim 11, wherein:

30 - said application of heat to said at least one heating element in said water drain pipe is stopped after a specific time period.

13. The method according to claim 1, wherein:

- said step of determining a defrost start time is performed by selecting a defrost start time once every 24 hours.

5 14. The method according to claim 2, comprising the steps of:

- detecting the air temperature in said low temperature compartment,
- detecting the time the absorption refrigerator has been switched on,
- detecting if cooling energy source is available,
- detecting the battery voltage, and
- postponing the defrosting if the air temperature in said low temperature compartment is above a specified temperature or if the absorption refrigerator has been switched on shorter than a specified time or if the battery voltage is below a specified voltage level or if no energy source for cooling is available.

15 15. The method according to claim 13, wherein:

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- scheduling an extra defrosting cycle if end of defrosting of said low temperature compartment is determined by lapse of said specified time period.

16. The method according to claim 14, comprising the step of:

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- detecting battery voltage during the defrosting cycle and aborting the defrosting if said battery voltage level falls under a specified voltage threshold.

17. The method according to claim 1, wherein

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- said low temperature compartment comprises a fan, comprising the step of:
- said step of determining a defrost start time is

performed by detecting if said fan is blocked and start a defrost cycle if said fan is blocked.

18. The method according to claim 1, wherein

- said low temperature compartment comprises a fan, comprising the step of:
 - starting said fan intermittently for short periods during defrosting of said low temperature compartment.

19. An absorption refrigerator comprising means to perform the steps according to any of the claims above.